2025 - 2026 <u>ECE</u> M.S. / Ph.D. Degree Planner: Electronic Circuits & Systems (EC78)

- Minimum of 12 units (Plan I) or 16 units (Plan II) must be 201+ ECE courses that must count towards your degree.
- All courses counted towards the degree must be taken for a letter grade and for 4 units, with the exception of research units.
- Students CANNOT repeat a course unless they earned a D, F, or U grade. If you'd like to repeat a course, please submit the online form. More information about how to repeat a course can be found here.
- Must meet the Academic Residency requirement. More detailed info can be found <u>here</u>.

Core Coursework (12 Units) – choose one sequence from the following options:

The following combined options are from the 264A-D series (CMOS Analog Integrated Circuits & Systems I, II, III, IV) and the ECE 265A-D series (Communication Circuit Design I & II, Power Amplifiers for Wireless Communications, Communication Circuit Design III). Students must take A-B but the 3rd class is flexible.

ECE 264A-B, choose the 3rd course from ECE 264C, 264D, 265A, 265B, 265C, 265D, 260A or 260B

ECE 265A-B, choose the 3rd course from ECE 265C, 265D, 264A, 264B, 264C, 264D, 260A or 260B

◆ B-' grade or higher needs to be earned in order to move onto the next part of the sequence. No exceptions.

16 Additional Units Selected from the following

ECE 203	Biomedical Integrated Circuits and Systems
ECE 222A-B-C-D	Antennas & Their System Applications, Applied Electromagnetic Theory-Electromagnetics, Computational Methods for Electromagnetics, Advanced Antenna Design
ECE 250	Random Processes
ECE 251A-B-C-D	Digital Signal Processing I & II, Filter Banks & Wavelets, Array Processing
ECE 260A-B-C	VLSI Digital System Algorithms & Architectures, Integrated Circuits & Systems Design, Advanced Topics
ECE 264A-B-C-D	CMOS Analog Integrated Circuits & Systems I, II, III, IV
ECE 265A-B-C-D	Communication Circuit Design I & II, Power Amplifiers for Wireless Communications, Communication Circuits III
ECE 266	CMOS Circuit Lab
ECE 283	Integrated Circuit Lab
ECE 283 (Fall)	Power Management Integrated Circuits
ECE 283 (Winter)	High-Speed Wireline Communication Circuits and Systems

Quarter (List FA##, WI##, SP## below)	Core Courses
Total: 12 Units	

Quarter (List FA##, WI##, SP## below)	Additional Units
Total: 16 Units	

Quarter (List FA##, WI##, SP## below)	Technical Electives
Total: 20 Units	

Technical Electives (20 Units)

- At least 12 units from any 4-unit, 200+ course from ECE taken for a letter grade.
- Up to 8 units from any 4-unit, 200+ course from CSE, DSC, MAE, BENG, CENG, NANO, SE, MATS, MATH, PHYS, or CogSci taken for a letter grade may be counted. *Exceptions to this list require departmental approval.
- Up to 8 units of undergraduate ECE coursework (ECE 111+ only**) OR up to one 4-unit course of undergraduate ECE coursework (ECE 111+ only**) and one 4-unit course of CSE undergraduate coursework (CSE 100+ only***) may be counted.
- M.S. students (Plan II) are allowed no more than 4 units of research units as technical electives. Ph.D. and M.S. students (Plan I) are allowed no more than 8 units of research as technical electives.
 - > The following research course(s) could be used toward the degree:
 - ECE 299, CSE 293/298/299, MAE 299, BENG 299, NANO 299, SE 299, DSC 299
- Seminar courses cannot count towards the degree
 - ** Not including ECE courses numbered: 195, 197, 198, 199, 210 or 298
 - *** Not including CSE courses numbered: 123, 140, 140L, 143 or 294

Curriculum Advisor

EC78 Advisor Contact Information

Role: Advises graduate students regarding course selection; Considers any exception requests requiring faculty approval; Signs forms; Technical engineering related questions & job advice.

PLEASE CONTACT <u>YOUR STAFF ADVISOR</u> FOR ALL OTHER ISSUES.